

## **REMARKS**

Applicant is in receipt of the Office Action mailed March 16, 2005. Claims 3, 14, 28, 51-77, and 80-105 have been cancelled. Claims 1, 4, 15, 26, 29, 36-37, 39-40, 46, 50, and 78-79 have been amended. New claims 106-135 have been added. Thus, claims 1, 2, 4-13, 15-27, 29-50, 78-79, and 106-135 remain pending in the case. Reconsideration of the present case is earnestly requested in light of the following remarks.

### **Restriction**

Applicant confirms the election of Group I, claims 1-50 and 78-80, and has cancelled claims 51-77 and 81-105, accordingly. However, Applicant reserves the right to pursue the subject matter of the cancelled claims in a divisional application.

### **Objections**

Claims 78-80 were objected to under 37 CFR 1.75 as being a substantial duplicate of claims 1-3. Claims 3 and 80 have been cancelled, and their subject matter included in their respective independent claims. Applicant has amended claims 78-79 to more clearly distinguish from the subject matter of claims 1-2. More specifically, Applicant has removed the term "measurement" from the preamble of claims 78-79, thus bringing the preamble of these claims into agreement with the subject matter of the claim body. Applicant notes that as currently amended, claims 78-79 are directed to a reconfigurable system, whereas claims 1-2 are directed to a reconfigurable *measurement* system. Applicant believes these claims as written thus have different areas of coverage.

Removal of the 37 CFR 1.75 objection of these claims is respectfully requested.

### **Section 112 Rejections**

Claims 3-4, 7-10, 14, and 20 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention, specifically, for the use of the phrases "a first portion of the measurement function", a second portion of the

measurement function”, and “at least a portion of the measurement program”, which Examiner asserts is indefinite. Applicant respectfully disagrees.

Original claim 3 (now incorporated into claim 1) recites:

3. The reconfigurable measurement system of claim 1,  
wherein, after the hardware configuration program is deployed onto the programmable hardware element, the programmable hardware element is operable to:  
directly perform a first portion of the measurement function; and  
invoke the one or more fixed hardware resources to perform a second portion of the measurement function.

Applicant notes that the qualifiers “first” and “second” are only used as reference labels for distinguishing between the two portions, and do not denote any particular order of the portions or particular partitioning of the measurement function. Applicant submits that the meaning of these claim limitations is not indefinite, and that it would be clear to one of ordinary skill in the art that the programmable hardware element is operable to perform a part (a first portion) of the measurement function directly, i.e., without invoking the one or more fixed hardware resources, and to perform another part (a second portion) of the measurement function via invocation of the one or more fixed hardware resources. In other words, the measurement function includes a part that does not use the fixed hardware resources, and a part that does use the fixed hardware resources, and after deployment of the hardware configuration program the programmable hardware element is operable to implement and perform the functionality of the measurement function accordingly. Applicant respectfully submits that this limitation is not indefinite, and is understandable to those of ordinary skill in the art.

Similarly, claim 7 recites:

7. The reconfigurable measurement system of claim 1,  
wherein the device further comprises a processor and memory;  
wherein at least a portion of the measurement program is operable to be stored in the memory and executed by the processor.

Applicant submits that in the embodiment represented in claim 7, the use of the phrase “at least a portion of the measurement program is operable to be stored in the memory and executed by the processor”, simply indicates that some, or all, of the measurement program may be stored in memory, and executed by a processor.

Applicant respectfully submits that this limitation is not indefinite, that the meaning of “at least a portion” is clear and understandable to those of ordinary skill in the art, and that such limitations are often used in proper claims.

Similarly, claim 10 recites:

10. The reconfigurable measurement system of claim 1,  
wherein the programmable hardware element includes a reconfigurable analog portion;

wherein at least a portion of the measurement program is operable to be implemented by the reconfigurable analog portion.

Applicant submits that in the embodiment represented in claim 10, the use of the phrase “at least a portion of the measurement program is operable to be implemented by the reconfigurable analog portion”, simply indicates that some, or all, of the measurement program may be implemented by a reconfigurable analog part of the programmable hardware element. Again, Applicant respectfully submits that this limitation is not indefinite, that the meaning of “at least a portion” is clear and understandable to those of ordinary skill in the art, and that such limitations are often used in proper claims.

In fact, Applicant’s Agent has prosecuted many applications over the years using such terminology without any such rejections being made.

Claim 14 (duplicate of claim 20) has been cancelled and so the 112 rejection of that claim is rendered moot. The subject matter of claim 3 has been incorporated into claim 1, and claim 3 cancelled. Arguments similar to those presented above also apply to claims 4, 8-9, and 20. Applicant respectfully submits that the section 112 rejection of

claims 4, 7-10, and 20 is improper, and requests removal of the section 112 rejection of these claims.

### **Allowed Subject Matter**

The Office Action indicated that claims 11, 12, 16, 21-25, 36, 37, 41, and 46-50 45 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, second paragraph, and to include the limitations of the base claim and any intervening claims.

The Office Action also indicated that claims 3-4, 7-10, 14, 20, 28, 29, 32, 35, 39, and 45 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, second paragraph, and to include the limitations of the base claim and any intervening claims. Applicant believes that the Section 112, second paragraph, rejections have been overcome, and thus considers the subject matter of these claims to be allowed by the Examiner. Applicant appreciates the allowed subject matter.

Applicant accepts the allowed subject matter, has amended the independent claims (and the dependencies of their respective dependent claims) and added additional new claims, accordingly. More specifically,

Applicant has amended claim 1 to include the allowed subject matter of claim 3, cancelled claim 3, and amended the dependency of claim 4, accordingly.

Applicant has amended claim 26 to include the allowed subject matter of claim 28, cancelled claim 28, and amended the dependency of claim 29, accordingly.

Applicant has also amended claim 78 to include the subject matter of claim 80, and cancelled claim 80, accordingly. Applicant believes that claim 78 as currently amended is allowable for similar reasons as claims 1 and 26.

Additionally, Applicant has amended claims 15 and 40 to clarify the meaning of “graphical program”.

Applicant has also added new claims 106-110 to further clarify the meaning and scope of “fixed hardware resources”.

Claim 14 and 20 are duplicates, and so Applicant has cancelled claim 14.

Claims 36, 37, 39, and 46 have been amended to correct their dependencies. For support for these amendments, Applicant directs the Examiners attention to claims 11, 12, 20, and 21, and notes that the amended dependencies of claims 36, 37, 39, and 46 reflect the dependencies of claims 11, 12, 20, and 21 with respect to their respective parent claims.

Claim 50 has been amended to add a missing period.

### **Section 102 Rejections**

Claims 1-2, 5, 6, 13, 15, 17, 18, 19, 26-27, 30, 31, 38, 40, 42, 43, and 44 were rejected under 35 U.S.C. 102(e) as being anticipated by Casselman (USP No. 5,684,980, "Casselman").

Applicant respectfully submits that independent claims 1 and 26 (and 78) as currently amended based on the allowed subject matter are patentably distinct and non-obvious over Casselman, and so claims 1 and 26 (and 78), and those claims respectively dependent therefrom, are allowable.

Removal of the 102 rejection of these claims is respectfully requested.

## CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-61502/JCH.

Also enclosed herewith are the following items:

- Return Receipt Postcard

Respectfully submitted,



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